



# Vibration Management



ISO 9001  
EN 9100  
BUREAU VERITAS  
Certification



# semia





# Ground Support Equipment

Engine Vibration  
Control (EVC)

Rotor Track &  
Balance (RTB)

For EVC only  
**Syntham 2000**

For EVC and/or RTB  
**Syntham 5000**

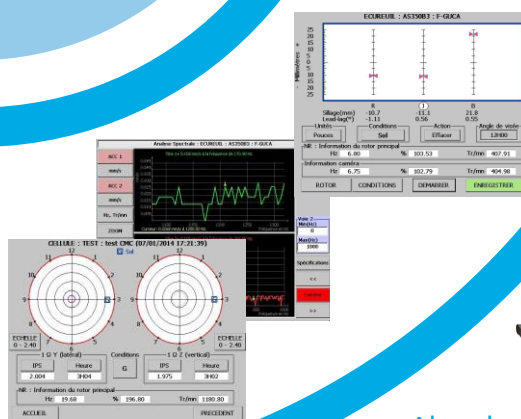
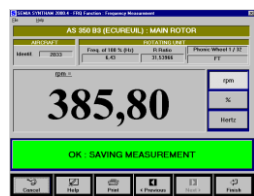
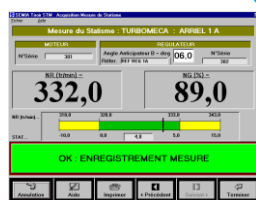
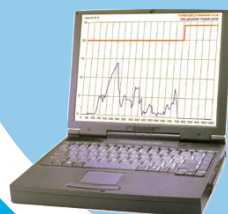
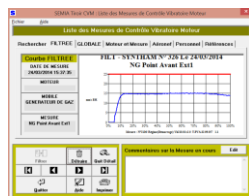
Main functions

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- Frequencymeter
- Engine Vibration Check
- Auto-Rotation Time
- Governor Static Droop

- Engine functions (= Syntham 2000)
- Track and Balance
- Spectral Analysis Waterfall
- Harmonic & Vibratory Signatures

Cabin Vibration Setting (Absorber Tuning Unit)



Absorber  
Tuning Unit



The well known **Syntham 2000 GSE** is approved on all Turbomeca engines since more than 10 years. With its laptop, you can manage and print all your measurements. The main EVC function is completed with secondary functions to perform a full check regarding the engine type.

**Syntham 5000**, the new born of GSE family, gives a combined solution for the customer: more than engine's functions, the **Syntham 5000** allows rotors and transmission check (multi-sensors compatibility) with basic and expert airframe functions for **ALL IN ONE System**



# On Board Equipment

Engine Vibration Control (EVC)

Rotor Track & Balance (RTB)

## For EVC and RTB monitoring Helivib

### STEP 1

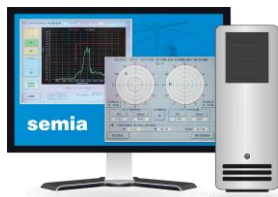
At the start up of aircraft during any operational flight, **Helivib system automatically proceeds an engine vibration control** on generator and free turbine.

### STEP 2

When engine and rotors are at nominal speed, the **Helivib system switches itself** to rotors balance measurements on **Ground and Hover** conditions.

### STEP 5

Ground Station



The **ONLY HUMAN STEP**: Verify there is no trouble on aircraft with the semia's data-Manager software.



### STEP 4

As soon as the aircraft come back to the ground, saved datas are transferred to ground station by GPRS connection **without human task**.

### STEP 3

During any flight, **Helivib system** measures continuously all rotors vibrations and saves data always regarding flight conditions defined by the manufacturer. (flight speeds)

**Helivib** is the On-Board brother of the Syntham 5000 GSE, taking its best measurement's precision and giving a new dimension for the vibration monitoring. By autonomous working, **Helivib** allows to save time and reduce technical flights number with a factual vibration management.

The **semia** company is approved **PART 21J APDOA** (Design Approval), **PART 21G** (Production Approval) and **PART 145** (Maintenance Approval) for this **Helivib** system entirely designed by internal team.



# Test & Training Equipment

## VibSim

The **complete vibration simulator** to create any rotor balanced situation like on aircraft  
The **best solution for testing** all your measurement chain  
The **unique solution for training** your technicians in room without need of aircraft

### Accelerotester



Provide mechanical excitation with speed adjustment to check transducer health

Compact and Cheap solution to test speed and vibratory sensors  
Usable with any vibration measurement system (Syntham, Vibrex, Steady Control, ...)

## VibSim



Compact solution to check quickly Syntham 2000 or 5000 on engine vibration check function.  
Speed and vibratory channels are tested in same time.

### S5000-S2000 Tester



Provide specific and calibrated signal simulating engine start-up

### Full Contract Maintenance

**semia** has a long experience and expertise in MRO including a complete meshing for your equipment: logistic for multi location deliveries, technical support, training, no rupture in use thanks to available stock, website for customer real-time information.

